



SHILAP Revista de Lepidopterología

ISSN: 0300-5267

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Sociedad Hispano-Luso-Americana de
Lepidopterología
España

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SHILAP Revista de Lepidopterología, vol. 36, núm. 144, diciembre, 2008, pp. 531-538

Sociedad Hispano-Luso-Americana de Lepidopterología

Madrid, España

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New species and new records of the genus *Metanarsia* Staudinger, 1871 (Lepidoptera: Gelechiidae)

O. Bidzilya

Abstract

Four new species: *Metanarsia monochroma* Bidzilya, sp. nov. (Iran, Iraq), *M. amseli* Bidzilya, sp. nov. (South Iran), *M. trisignella* Bidzilya, sp. n. (Uzbekistan) and *M. mongola* Bidzilya, sp. nov. (Mongolia) are described. Two new synonyms are established: *Metanarsia modesta kurdistanella* Amsel, 1959 syn. nov. of *M. modesta* Staudinger, 1871; *Gelechia ramiferella* Lucas, 1940 syn. nov. of *Metanarsia incertella* (Herrich-Schäffer, 1861). *M. piskunovi* Bidzilya, 2005 is newly recorded from China.

KEY WORDS: Lepidoptera, Gelechiidae, *Metanarsia*, new species, new records.

Nuevas especies y nuevas citas del género *Metanarsia* Staudinger, 1871 (Lepidoptera: Gelechiidae)

Resumen

Se describen cuatro nuevas especies: *Metanarsia monochroma* Bidzilya, sp. nov. (Irán, Iraq), *M. amseli* Bidzilya, sp. nov. (Sur de Irán), *M. trisignella* Bidzilya, sp. n. (Uzbekistán) and *M. mongola* Bidzilya, sp. nov. (Mongolia). Se establecen dos nuevas sinonimias: *Metanarsia modesta kurdistanella* Amsel, 1959 syn. nov. de *M. modesta* Staudinger, 1871; *Gelechia ramiferella* Lucas, 1940 syn. nov. de *Metanarsia incertella* (Herrich-Schäffer, 1861). *M. piskunovi* Bidzilya, 2005 es nueva cita para China.

PALABRAS CLAVE: Lepidoptera, Gelechiidae, *Metanarsia*, Nuevas especies, nuevas citas.

Introduction

As a result of recent review (BIDZILYA, 2005) ten species were recognized as members of the genus *Metanarsia* Staudinger, 1871. In the course of my studies on the collection materials of the Zoological Institute of Sankt-Petersburg, Russia (ZIN) and the Staatliches Museum für Naturkunde Karlsruhe, Germany (LMK) four additional new species were discovered and some new records were made. Two presumed synonyms were confirmed after study of the type materials. So the number of *Metanarsia* species was increased to fourteen, and another undescribed species related to *M. kosakewitshi* Piskunov, 1990 was found in South Ural (Kari Nupponen, pers. comm.).

Metanarsia modesta Staudinger, 1871 (Figs. 1, 2)

Metanarsia modesta Staudinger, 1871: 315

M. modesta kurdistanella Amsel, 1959: 66, pl. 10 fig. 12, pl. 7 fig. 5, **syn. n.**

Material examined: Two paratypes of *M. modesta kurdistanella* Ams.: ♂, "2-13-VI-[19]56, 5000-3000 ft, Haj Omran, Rayat Iraq, E. P. Wiltshire, KK.62"/ "Paratypus, leg. H. Amsel"; ♂, "3-VIII-[19]54, 1760 m, 6780 ft, Hassi Omran, E. P. Wiltshire, Iraq, Kurdistan" / "GU 3376" / "Paratypus, leg.

H. Amsel" (LMK). Lectotype of *modesta* Stgr.: "Lectotype" / "Origin." / "Sarepta Chr." / "Lectotype, *Metanarsia modesta* Stdgr., teste K. Sattler, 1986, ♂" / "ex coll. Staudinger" (ZMHB).

Notes: This presumed synonym (BIDZILYA, 2005) is here confirmed after study of the type series of *M. modesta kurdistanella* Ams. in the Amsel collection (LMK).

M. modesta is one of the most broadly distributed *Metanarsia* species, known from Southern and Eastern Europe, Central Asia and Southern Siberia (BIDZILYA, 2005). Records from China (LI, 2002) should be referred to *M. piskunovi* Bidzilya, 2005 (see below).

Metanarsia onzella Christoph, 1887

Metanarsia onzella Christoph, 1887: 120, pl. V, fig. 13

Material examined: 1 ♂, [Russia] Astrakh., 16-VI-[19]03, Schreiner (ZIN).

Distribution: SE Kazakhstan, Uzbekistan, Turkmenistan and Southern Russia: Volgogradskaya oblast= (Sarepta), Astrakhanskaya oblast= (new record).

Metanarsia piskunovi Bidzilya, 2005

Notes: The species was described from Mongolia. Here it is also recorded from China (Quinghai Province, Ningxia Hui Autonomous Region) (LI, 2002 as *M. modesta* Stgr.).

***Metanarsia monochroma* Bidzilya, sp. n.**

Material examined. Holotype: ♂, "Afghanistan, Herat, 970 m, 5-V-1956, H. G. Amsel leg" (gen. prep. 160/07) (LMK). Paratypes: 5 ♂ ♂, 2 ♀ ♀, labelled as holotype (gen. prep. 158/07 ♂, 161/07 ♀). 1 ♂, "14-V-1965, 20 km S. v. Quetta, 1900 m, Pakistan, Kasy & Vartian" (LMK).

Description (Fig. 3): Wingspan 15.0-18.5 mm. Head, thorax, tegulae and labial palpus uniformly whitish-cream, frons white. Labial palpus short, almost straight, weakly curved basally; segment 2 about twice the width and three times the length of segment 3; segment 3 very short. Haustellum well developed; scape cream with pecten of few hair-like scales at base, other antennal segment cream with white rings. Forewing covered with yellowish-grey brown-tipped scales; indistinct small brown spot about one-third near posterior margin; one specimen with diffuse group of brown scales in middle of cell; fringe long, brown-tipped. Hindwing grey, cilia light.

Male genitalia (Figs. 9, 10): Uncus sub-rectangular, slightly broader than longer, densely covered with short setae. Gnathos as membranous triangular plate. Tegumen twice as broad as long, trapezoid. Cucullus slightly longer than uncus, broad, inner margin distinctly broadened about two-thirds length, apex triangular. Sacculus relatively narrow, about half length of cucullus, with three apical and one lateral teeth. Vinculum lobes relatively long and slender, rounded apically. Saccus triangular. Aedeagus slightly shorter than cucullus, bifurcated at base, apical portion distinctly slenderer than basal portion, with small tooth before apex.

Female genitalia (Fig. 13): Papilla anales prolonged, rounded apically, sparsely covered with long setae. Apophyses anteriores recurved, slightly shorter than apophyses posteriores. Segment VIII relatively broadly sclerotized laterally, its anterior margin narrow, band-shaped. Ductus bursae membranous, short and slender, evenly broadened towards corpus bursae. Corpus bursae long, evenly broadened proximally, signum absent.

Diagnosis: *M. monochroma* sp. n. belongs to the *M. modesta* species-group. It resembles externally *M. modesta* Staudinger, 1871, but differs in having lighter, yellowish-cream rather than light-grey ground colour of forewing and slender segment 2 of labial palpus. The male genitalia resemble those of *M. onzella* Christoph, 1877, but differ from this and all other *Metanarsia* species in extremely broad cucullus in combination with relatively narrow sacculus and triangular gnathos. The female genitalia resemble those of *M. piskunovi* Bidzilya, 2005, but can be clearly distinguished by longer and distinctly curved apophyses anteriores.

Biology: Host-plant unknown. Adults fly in May.

Distribution: Afghanistan, Pakistan.

***Metanarsia mongola* Bidzilya, sp. n.**

Material examined: Holotype: ♂, “Mongolia, Uver-Khangaiskiy Aimak, bliz vost.[ochnogo] ber.[ega] oz.[era] Tatsyn-Tsagan-Nur [Mongolia, Uver-Khangaiskiy Aimak, near east bank of Tatsyn-Tsagan-Nur Lake] 2-4-VIII-[1]969, Kerzhner” (in Cyrillic characters) (gen. prep. 36/05) (ZIN). Paratypes: 2 ♂, ♀, labelled as holotype (ZIN); ♀, Mongolia, Gobi-Alt.[aiskiy] Aimak, 15 km ZSZ Delgera, 11-VII-[1]970, Emeljanov (gen. prep. 37/05) (ZIN).

Description (Fig. 4): Wingspan 21-23 mm. Head, thorax, and tegulae light cream with some brown-tipped scales. Labial palpus weakly curved; segment 2 broad and short, about twice the length and 2.5 times the width of segment 3, outer surface light brown with cream apex, inner surface light brown; segment 3 short, pointed apically, cream with broad light brown ring at base. Haustellum short. Scape cream with pecten of few hair-like scales, other antennal segments dark brown with white rings. Forewing light brown, with cream fascia near base from posterior margin just up to costa, the cream elongated spots in half length at posterior margin, costal elongated touch from half to three-quarters length, cream spot in middle of wing about two-thirds length; subapical area cream. Hindwing light grey.

Male genitalia (Fig. 11): Uncus short, rounded and densely covered apically with hair-like setae. Gnathos short, indistinct, membranous. Cucullus relatively short and broad. Saccus sub-rectangular, with one triangular lateral and three apical teeth. Vinculum lobes well developed, triangular, rounded apically. Saccus relatively long and narrow, rounded apically. Aedeagus short, slightly longer than saccus, base well sclerotized, apex rounded with small tooth.

Female genitalia (Fig. 14): Papillae anales broad, covered with long setae. Apophyses posteriores about as long as apophyses anteriores. Segment VIII relatively broad sclerotized laterally, anterior margin narrowly sclerotized, band-shaped. Ductus bursae short, membranous, evenly broadened towards corpus bursae. Corpus bursae long, semioval. Signum absent.

Diagnosis: *M. mongola* Bidzilya, sp. n. belongs to the *M. modesta*-group of species. The male genitalia are similar to those of *M. scythiella* Ponomarenko, 2000 and *M. piskunovi* Bidzilya, 2005, but differ regularly in having a relatively long and narrow, sub-rectangular saccus and longer saccus. The female genitalia of *M. mongola* Bidzilya, sp. n. resemble those of *M. piskunovi* but slightly differ in the longer ductus bursae, broader sclerotized lateral margin of sternite VIII and relatively longer apophyses posteriores. New species is more similar externally to *M. partilella* (Christoph, 1887) but differs in the light-brown with cream rather than greyish-white of *M. partilella* forewing.

Biology: Host-plant unknown. Adults fly from July to early August.

Distribution: Mongolia: Gobi-Altaiskiy Aimak, Uver-Khangaiskiy Aimak.

Metanarsia incertella (Herrich-Schäffer, 1861)

Anacampsis incertella Herrich-Schäffer, 1861: 31, pl. [23], fig. 156.

Gelechia rhamiferella Lucas, 1940: 228, **syn. n.**

Material examined: Holotype of *incertella* “Holotype” / “Origin.” / “Coll. Möschl.” / “Sarepta, C., 60. Type, zu A. kh. f. 15b.” / “Holotype, *Anacampsis* ? *incertella* H.-S., teste K. Sattler, 1986, ♂” / “ex coll. Staudinger” (ZMHB); 1 ♂, “*Gelechia rhamiferella* D. Lucas” / “Beni-Ounif, Algo, 26-IV-1938, 230” / “Paratype” / K”. Sattler, 311d” / “GU 3731” (LMK).

Notes: This presumed synonym (HUEMER *et al.*, 1996) is here confirmed after examination of one specimen (Fig. 8), which does not belong to type series, but fits the holotype (Fig. 7) and original description well and originated from the type locality (see under “Material examined”) of *G. rhamiferella*.

***Metanarsia trisignella* Bidzilya, sp. n.**

Material examined: Holotype ♂, Zhamansai, 140 km NW Shafrikana, Uzbek.[istan], 23-IV-[19]66, Falkovitsh (ZIN). Paratypes: 1 ♂, 3 ♀, same data, 18-23-24-IV-[19]66 (gen. prep. 34/03 ♂;

41/03 ♀; 2 ♂, same data, 8-VI-[1]967; 1 ♂, [Turkmenistan] Repetek, SE Karakum, 14-IV-1982, na svet, Krivokhatskiy; 1 ♂, Repetek, na svet, 10-IV-1981, Krivokhatskiy; 2 ♂ ♂, [Kazakhstan] Sarytaukum, 150 km NNE Alma-Ata, 2-6-V-1981, na svet, Reznik (gen. prep. 112/07) (ZIN).

Description (Fig. 5): Wingspan 10-14 mm. Head, thorax and tegulae white; head with prominent frontal process. Labial palpus up curved; segment 2 twice width of segment 3, whitish-cream, outer surface with brown medial belt; segment 3 short with narrow medial brown belt; scapus brown, other antennal segments white, cream-ringed. Forewing narrow, white, costal margin mottled with brown; brown points in one-quarter in middle and in three-thirds at dorsal margin; brown transversal fascia from dorsal one-third to middle width; cilia white brown-tipped. Hindwing and cilia grey. Some paratypes with whitish-cream forewing without brown points.

Male genitalia (Fig. 12): Uncus very short, not clearly separated from tegumen. Tegumen trapezoid, gradually narrowed apically. Gnathos indistinct, very membranous, narrow, triangular. Cucullus relatively short, apex strongly widened, rounded. Saccus sub-rectangular, with two apical teeth, nearly three-quarters length of cucullus. Vinculum narrow, band-shaped, lobes absence. Saccus prolonged, rounded apically. Aedeagus short, about as long as saccus, base strongly bifurcated, apical half slender with distinctly pointed and laterally curved tip.

Female genitalia (Fig. 15): Papillae anales broad, sparsely covered with short setae. Apophyses posteriores slightly shorter than apophyses anteriores. Segment VIII relatively broadly sclerotized laterally, anterior margin narrowly sclerotized, band-shaped. Ductus bursae relatively short, membranous, evenly broadened towards corpus bursae. Corpus bursae rounded. Signum has three whisk- or brush-shaped patches: two of them are rounded and third is prolonged.

Diagnosis: *M. trisignella* sp. n. is easily recognizable externally by narrow prolonged forewing and presence of prominent frontal process as well as by unique triple whisk-shaped signum in the female genitalia.

Notes: The new species takes intermediate position between *Metanarsia* and *Coloptilia* T. Fletcher, 1940. Its male genitalia fit well those of *Metanarsia*. On the other hand *M. trisignella* shares with *Coloptilia* such characters as a well developed whisk-shaped signum in the female genitalia and narrow prolonged forewing. The prominent frontal process has never been observed in *Metanarsia*, but sometimes occurs within *Coloptilia* and in several gelechiid genera (*Athrips* Billberg, 1820; *Ornativalva* Gozmány, 1955; *Caulastrocecis* Chrétien, 1931), but its importance for classification remains unknown. So I provisionally place here this species in *Metanarsia*, but its systematic position can be clarified only after the global revision of Apatetrini.

Biology: Host-plant unknown. Adults fly from April to June.

Distribution: Uzbekistan, Turkmenistan, SE Kazakhstan.

Metanarsia amseli Bidzilya, sp. n.

Material examined: Holotype: ♀, "S. Iran, Strasse Bandar-Abbas-Sirjan, km 70, 500 m, 2-IV-1973, H. G. Amsel leg" (gen. prep. 170/07) (LMK). Paratypes: 1 ♀, labelled as holotype (gen. prep. 184/07) (LMK).

Description (Fig. 6): Wingspan 12.0 mm. Head, thorax and tegulae light-grey, head with rare brown-tipped scales. Labial palpus very short, weakly curved; segment 2 light, grey-whitish, beneath brown; segment 3 light grey with broad brown middle ring, on third length of segment 2, pointed. Haustellum absent. Scape off-white with pecten of long hair-like scales, others antennal segments brown with white rings. Ground colour of forewing off-white, brown-tipped scales arranged in three spots in central part of forewing, which form diffuse, weakly oblique and partially interrupted transversal fascia from middle of costa to middle of posterior margin; other brown scales spread along costal margin and in subapical area; transversal fascia of paratype reduced to indistinct costal and dorsal spots; fringe white, brown-tipped. Hindwing light-grey with grey cilia.

Male genitalia: Unknown.

Female genitalia (Figs. 16, 17): Papilla anales large, sub-oval, sparsely covered with hair-like

setae. Apophyses anteriores about as long as apophyses posteriores. Segment VIII narrowly ring-shaped sclerotized, its anterior margin relatively broad, band-shaped. Corpus bursae membranous, very thin and short, signum absent.

Diagnosis: The female genitalia of *M. amseli* Bidzilya, sp. n. are clearly distinguished from all other *Metanarsia* species by extremely short and narrow bursae, remotely resembling those of *M. partilella* (Christoph, 1887). It slightly resembles externally uniformly coloured specimens of *M. alphaltodes* (Meyrick, 1891), but can be recognizable by broader forewing and shorter labial palpus. The female genitalia of *M. amseli* most resemble those of *M. partilella*, but the real position of this species within the genus can be clarified only after discovery of the male.

Biology: Host-plant unknown. Adults were collected in the early April.

Distribution: South Iran.

Acknowledgements

I wish to express my gratitude to Drs S. Yu. Sinev, A. L. Lvovsky (ZIN), W. Mey (ZMHB) and R. Trusch (LMK) for their assistance during my work with the collections. I am very thankful to Ernst Meyr Travel grant for support of my study collection materials of LMK and ZMBH.

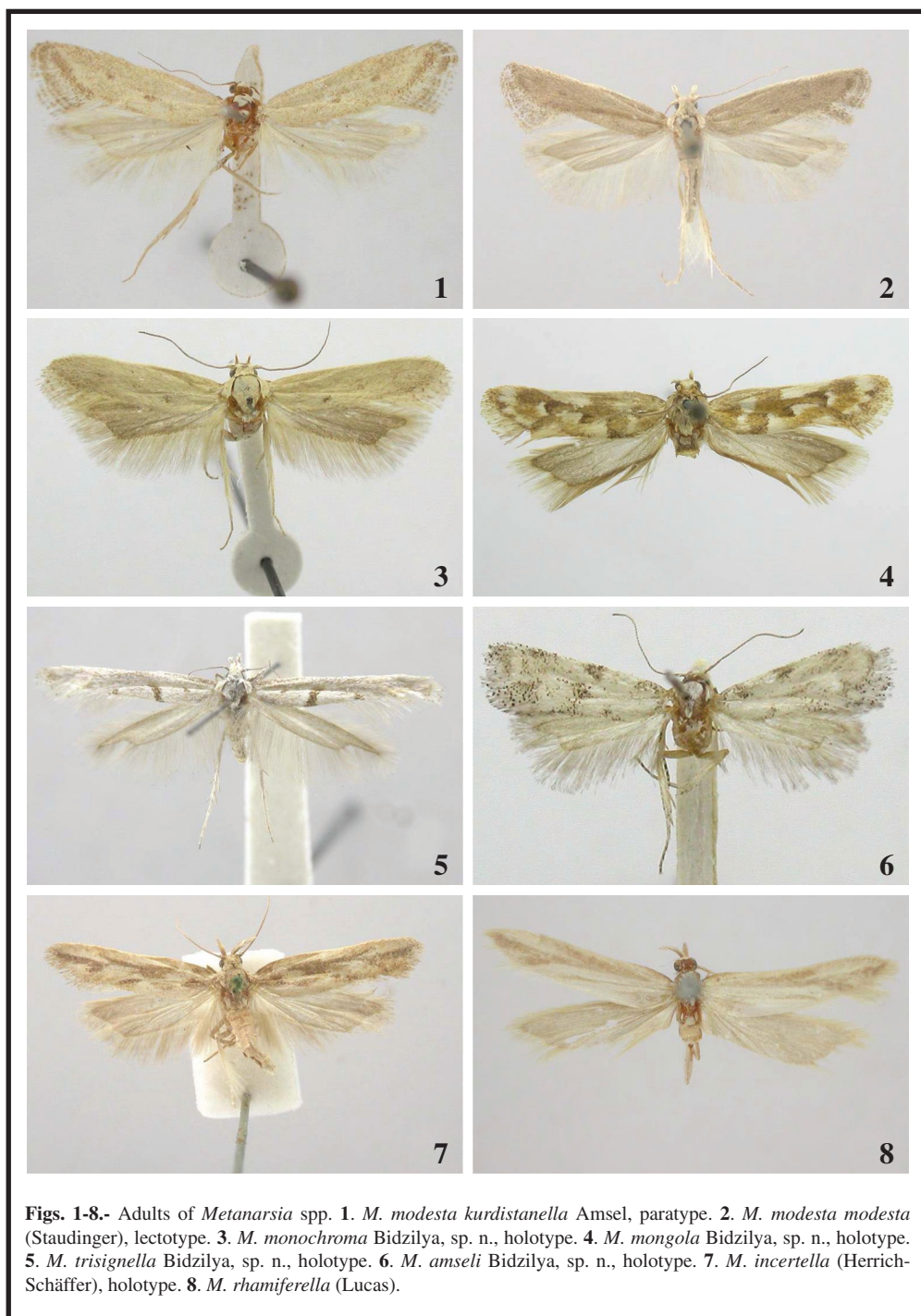
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(Recibido para publicación / Received for publication 15-X-2008)

(Revisado y aceptado / Revised and accepted 20-XI-2008)





Figs. 9-12.- Male genitalia of *Metanarsia* spp. **9.** *M. monochroma* Bidzilya, sp. n., holotype (gen. prep. 160/07). **10.** *M. monochroma* Bidzilya, sp. n., paratype (gen. prep. 158/07). **11.** *M. mongola* Bidzilya, sp. n., holotype (gen. prep. 36/05). **12.** *M. trisignella* Bidzilya, sp. n., paratype (gen. prep. 34/03).

